

## WHAT IS CLAIMED IS:

1. A display and input system for integrating service and system functions with gaming functions via a gaming display screen of a gaming device, the gaming device utilizing a multiple processor platform, wherein at least one processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface; the  
 5 gaming device further including a gaming interface incorporated within a display screen, wherein the gaming interface enables a player to participate in a wagering game; the display and input system comprising:

a systems interface incorporated into the display screen, wherein the systems interface displays system information from a system network to a casino player or employee via the display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee.

2. The display and input system of Claim 1, wherein the insertion of an identification card, on which only identification data is embedded, into a card reader activates the systems interface on the display screen.

3. The display and input system of Claim 1, wherein the system functions interface includes a player services interface and an employee systems interface, and wherein insertion of an authorized player identification card, upon which only identification data is embedded, into a card reader activates the player services interface in the display screen  
 5 which provides a player access to service features.

00967221.092301  
 103260 122/9660

4. The display and input system of Claim 1, wherein the system functions interface includes a player services interface and an employee systems interface, and wherein insertion of an authorized employee identification card, upon which only identification data is embedded, into a card reader activates the employee systems interface in the display screen  
5 which provides an employee access to system information.

5. The display and input system of Claim 1, further comprising a converter card connected to the additional processor, wherein the converter card enables a systems logic process to facilitate communication between the systems interface and a system network which contains system information.

6. The display and input system of Claim 1, further comprising a Y adapter that allows communication between the display screen and both the at least one processor and the additional processor.

7. The display and input system of Claim 1, wherein the additional processor further includes calibration software that enables the additional processor to calibrate the display of system information on the display screen.

8. The display and input system of Claim 1, wherein the systems interface utilizes touchscreen technology for inputting and accessing system information in the systems network.

09967221.092801

9. The gaming system of Claim 1, wherein the gaming device utilizes a multiple processor platform, wherein the at least one processor supports hard real time processing for hardware applications, and the additional processor supports a graphic user interface,

wherein the at least one processor runs hard real time tasks related to controlling

5 game peripherals;

wherein either the at least one processor or the additional processor runs a game logic process that includes the game rules necessary to generate a wagering game in the gaming interface;

wherein the additional processor runs a systems logic process that provides access to system information on a system network via the systems interface; and

wherein the additional processor also runs a game display process that includes the audiovisual functionality necessary to generate a wagering game via the gaming interface, wherein the systems logic process is maintained as a separate process from the game display process.

10. The display and input system of Claim 9, wherein the gaming display screen includes a small region that, when selected, activates the systems interface.

11. The display and input system of Claim 10, wherein the game display process is a master process and the systems logic process is a slave process, and wherein the game display process recognizes when the small region of the display screen is selected, and relinquishes control of the display screen to the systems logic process, allowing

5 communication between the systems interface and a system network.

009667221.092801  
F08260.T227960

13. The display and input system of Claim 12, wherein the message section of the display screen is dedicated to control by the systems logic process, and is free from control by the game display process.

15. The display and input system of Claim 9, wherein the systems logic process is modifiable without impacting the game display process, and wherein the game display process is modifiable without impacting the systems logic process, thereby providing security and compatibility.

16. A display and input system for integrating service and system functions with gaming functions via a gaming display screen of a gaming device within a gaming system, the gaming system including a system network containing system information; a gaming device utilizing a multiple processor platform, wherein at least one processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface; a gaming interface incorporated into a display screen, wherein the gaming interface

enables a player to participate in a wagering game; and a network interface for connecting the gaming device to the system network; the display and input system comprising:

- 10 a systems interface incorporated into the display screen, wherein the systems interface displays system information from the system network to a casino player or employee via the display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee.

17. The display and input system of Claim 16, wherein the systems interface includes system information input and display capabilities.

18. The display and input system of Claim 16, wherein the systems interface utilizes touchscreen technology for inputting and accessing system information in the systems network.

19. The display and input system of Claim 16, further comprising a card reader, wherein the card reader functions to read identification cards, upon which only identification data is embedded.

20. The display and input system of Claim 16, wherein the systems interface includes a player services interface and an employee systems interface.

21. The display and input system of Claim 20, wherein the player services interface provides player access to service features selected from a group including beverages, change, and transactions.

09967221-092801

23. The display and input system of Claim 20, further comprising a card reader, and wherein insertion of an authorized player identification card into the card reader activates the player services interface in the gaming display screen.

24. The display and input system of Claim 20, further comprising a card reader, and wherein insertion of an authorized employee identification card into the card reader activates the employee systems interface in the gaming display screen.

25. The display and input system of Claim 16, wherein the gaming system includes a game logic process and a game display process that generate a wagering game via the gaming interface, and a systems logic process that generates communication between the system network and the systems interface.

26. The display and input system of Claim 16, wherein the gaming device utilizes a multiple processor platform, wherein the at least one processor supports hard real time processing for hardware applications, and the additional processor supports a graphic user interface, and

5 wherein the at least one processor runs hard real time tasks related to controlling game peripherals;

wherein either the at least one processor or the additional processor runs a game logic process that includes the game rules necessary to generate a wagering game in the gaming interface;

10 wherein the additional processor runs a systems logic process that provides access to system information on a system network via the systems interface; and

wherein the additional processor also runs a game display process that includes the audiovisual functionality necessary to generate a wagering game in the gaming interface, wherein the systems logic process is maintained as a separate process from the game display process.

27. The display and input system of Claim 26, wherein the gaming display screen includes a small region that, when selected, activates the systems interface.

28. The display and input system of Claim 27, wherein the game display process is a master process and the systems logic process is a slave process, and wherein the game display process recognizes when the small region of the display screen is selected, and relinquishes control of the display screen to the systems logic process, allowing  
5 communication between the systems interface and the system network.

29. The display and input system of Claim 26, further comprising a message section on the display screen, wherein the section of the display screen is allocated for showing messages to a player of the gaming device.

09957221-092801

30. The display and input system of Claim 29, wherein the message section of the display screen is dedicated to control by the systems logic process, and is free from control by the game display process.

31. The display and input system of Claim 26, wherein the systems logic process and the game display process are separate processes that each comprise an independent thread.

32. The display and input system of Claim 26, wherein the systems logic process is modifiable without impacting the game display process, and wherein the game display process is modifiable without impacting the systems logic process, thereby providing security and compatibility.

33. The display and input system of Claim 26, wherein the game display process that runs the gaming interface supports a graphic user interface based wagering game.

34. The display and input system of Claim 26, further comprising a game monitoring unit having a converter card.

35. The display and input system of Claim 34, wherein the game monitoring unit includes a network interface card.

09967221.092801



36. The display and input system of Claim 34, wherein the converter card utilizes I<sup>2</sup>C hardware and signaling.

37. The display and input system of Claim 34, wherein the converter card enables the systems logic process to communicate with the systems interface and the system network.

38. The display and input system of Claim 16, further comprising a Y adapter that connects the display screen to both the at least one processor and the additional processor.

39. The display and input system of Claim 16, wherein the additional processor further includes calibration software that enables the additional processor to calibrate the display of system information via the display screen.

40. The display and input system of Claim 16, wherein integrating the systems interface via the display screen lowers overall system costs due to hardware elimination and reduces maintenance costs due to fewer hardware parts.

41. A display and input system for integrating service and system functions with gaming functions via a gaming display screen of a gaming device, the gaming device utilizing a multiple processor platform, wherein at least one processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface;  
5 wherein either the at least one processor or the additional processor runs a game logic process that includes the game rules necessary to generate a wagering game; and wherein the

09967221.092801

additional processor runs a game display process that includes a audiovisual functionality necessary to generate a wagering game; the gaming device further including a gaming interface produced by the game logic process and the game display process, and that is

10 viewable on a display screen, wherein the gaming interface enables a player to participate in the wagering game; the display and input system comprising:

a systems interface produced by a systems logic process and that is viewable on the display screen, wherein the systems interface provides access to the system information on the system network via the display screen; and wherein the systems interface allows requests  
15 to be input into the system network from the systems interface by a casino player or employee; wherein the additional processor runs the systems logic process that provides access to system information on a system network; and wherein the systems logic process is maintained as a separate process from the game display process;

a converter card enabling the additional processor to communicate with the systems  
20 interface and a system network;

a Y adapter that enables communication between the display screen and both the at least one processor and the additional processor; and

calibration software that enables the additional processor to calibrate the display of system information on the display screen.

42. A display and input system for integrating service and system functions with gaming functions via a gaming display screen of a gaming device within a gaming system, the gaming system including a system network containing system information; a gaming device utilizing a multiple processor platform, wherein at least one processor is capable of  
5 hard real time processing, and an additional processor is capable of supporting a graphic user

09067221-002801

interface; wherein either the at least one processor or the additional processor runs a game logic process that includes the game rules necessary to generate a wagering game; and wherein the additional processor runs a game display process that includes audiovisual functionality necessary to generate a wagering game; a gaming interface produced by the game logic process and the game display process, and that is viewable on the display screen, wherein the gaming interface enables a player to participate in the wagering game; and a network interface for connecting the gaming device to the system network; the display and input system comprising:

a systems interface produced by a systems logic process and that is viewable on the display screen, wherein the systems interface provides access to the system information on the system network via the display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee; wherein the additional processor runs the systems logic process that provides access to system information on a system network; and wherein the systems logic process is maintained as a separate process from the game display process;

a converter card that enables the additional processor to communicate with the systems interface and the system network;

a Y adapter that enables communication between the display screen and both the at least one processor and the additional processor; and

calibration software that enables the additional processor to calibrate the display of system information on the display screen.

43. A gaming system for integrating gaming functions and system functions via a gaming display screen in a gaming device, the gaming system comprising:

a system network containing system information;

a network interface for connecting a gaming device to the system network;

5 a gaming interface incorporated into the display screen, wherein the gaming interface enables a player to participate in a wagering game;

a systems interface incorporated into the display screen, wherein the systems interface displays system information in the system network to a casino player or employee via the display screen; and wherein the systems interface allows requests to be input into the system  
10 network from the systems interface by a casino player or employee.

44. The gaming system of Claim 43, wherein the systems interface utilizes touchscreen technology for inputting and accessing system information in the systems network.

45. The gaming system of Claim 43, further comprising a card reader, wherein the card reader functions to read identification cards, upon which only identification data is embedded.

46. The gaming system of Claim 43, wherein the systems interface includes a player services interface and an employee systems interface.

47. The gaming system of Claim 46, wherein the player services interface provides a player access to service features selected from a group including beverages, change, and transactions.

0967221.092801

49. The gaming system of Claim 46, further comprising a card reader, and wherein insertion of an authorized player identification card into the card reader activates the player services interface in the gaming display screen.

50. The gaming system of Claim 46, further comprising a card reader, and wherein insertion of an authorized employee identification card into the card reader activates the employee systems interface in the gaming display screen.

51. The gaming system of Claim 43, wherein the gaming system includes a game logic process and a game display process that generate a wagering game in the gaming interface, and a systems logic process that generates communication between the system network and the systems interface.

52. The gaming system of Claim 43, wherein the gaming device utilizes a multiple processor platform, wherein a plurality of processors support hard real time processing tasks, and an additional processor supports a graphic user interface, and

wherein the plurality of processors run hard real time tasks related to controlling

5 game peripherals;

wherein the additional processor runs a systems logic process that provides access to system information on a system network via the systems interface; and

wherein the additional processor also runs a game display process and a game logic process that together manage all game control necessary to generate a wagering game,

10 wherein the systems logic process is maintained as a separate process from the game display process.

53. The gaming system of Claim 43, wherein the gaming device utilizes a multiple processor platform, wherein at least one processor supports hard real time processing for hardware applications, and an additional processor supports a graphic user interface, and

wherein the at least one processor runs a game logic process that includes the game rules necessary to generate a wagering game in the gaming interface;

wherein the additional processor runs a systems logic process that provides access to system information on a system network via the systems interface; and

wherein the additional processor also runs a game display process that includes audiovisual functionality necessary to generate a wagering game via the gaming interface,

10 wherein the systems logic process is maintained as a separate process from the game display process.

54. The gaming system of Claim 53, wherein the gaming display screen includes a small region that, when selected, activates the systems interface.

55. The gaming system of Claim 54, wherein the game display process is a master process and the systems logic process is a slave process, and wherein the game display

00967221-092801

process recognizes when the small region of the display screen is selected, and relinquishes control of the display screen to the systems logic process, allowing communication between  
5 the systems interface and the system network.

56. The gaming system of Claim 53, further comprising a message section on the display screen, wherein the section of the display screen is allocated for showing messages to a player of the gaming device.

57. The gaming system of Claim 56, wherein the message section on the display screen is dedicated to control by the systems logic process, and is free from control by the game display process.

58. The gaming system of Claim 53, wherein the systems logic process and the game display process are separate processes, each comprising an independent thread.

59. The gaming system of Claim 53, wherein the systems logic process is modifiable without impacting the game display process, and wherein the game display process is modifiable without impacting the systems logic process, thereby providing security and compatibility.

60. The gaming system of Claim 53, wherein the game display process that runs the gaming interface supports a graphic user interface based wagering game.

09967221-092801

61. The gaming system of Claim 43, further comprising a game monitoring unit having a converter card.

62. The gaming system of Claim 61, wherein the game monitoring unit includes a network interface card.

63. The gaming system of Claim 61, wherein the converter card utilizes I<sup>2</sup>C hardware and signaling.

64. The gaming system of Claim 61, wherein the converter card enables the systems logic process to communicate with the systems interface and the system network.

65. The gaming system of Claim 43, further comprising a Y adapter that enables communication between the display screen and both the at least one processor and the additional processor.

66. The gaming system of Claim 43, wherein the additional processor further includes calibration software that enables the additional processor to calibrate the display of system information on the display screen.

67. The gaming system of Claim 43, wherein integrating the systems interface into the display screen lowers overall system costs due to hardware elimination and reduces maintenance costs.

09967221-092301  
108250-12229650



68. A gaming device having a display screen and a card reader, the gaming device comprising:

a gaming device utilizing a multiple processor platform, wherein a plurality of processors support hard real time processing tasks, and an additional processor supports a graphic user interface, and

wherein the plurality of processors run hard real time tasks related to controlling game peripherals;

wherein the additional processor runs a systems logic process that provides access to system information on a system network via the systems interface; and

wherein the additional processor also runs a game display process and a game logic process that together manage all game control necessary to generate a wagering game, wherein the systems logic process is maintained as a separate process from the game display process;

a gaming interface produced by the game logic process and the game display process, that is viewable on the display screen, wherein the gaming interface enables a player to participate in the wagering game; and

a systems interface produced by the systems logic process that is viewable on the display screen, wherein the systems interface provides access to the system information on the system network via the display screen.

69. A gaming device having a display screen and a card reader, the gaming device comprising:

a gaming device utilizing a multiple processor platform, wherein at least one processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface, and

wherein the at least one processor runs a game logic process that includes the game rules necessary to generate a wagering game;

wherein the additional processor runs a systems logic process that provides access to system information on a system network; and

wherein the additional processor also runs a game display process that includes audiovisual functionality necessary to generate the wagering game, wherein the systems logic process is maintained as a separate process from the game display process;

a gaming interface produced by the game logic process and the game display process, that is viewable on the display screen, wherein the gaming interface enables a player to participate in the wagering game; and

a systems interface produced by the systems logic process that is viewable on the display screen, wherein the systems interface provides access to the system information on the system network via the display screen.

70. The gaming device of Claim 69, wherein insertion of an identification card, upon which only identification data is embedded, into the card reader activates the systems interface on the display screen.

71. The gaming device of Claim 69, wherein the system functions interface includes a player services interface and an employee systems interface, and wherein insertion of an authorized player identification card, upon which only identification data is embedded,

09967221 092801

into the card reader activates the player services interface on the display screen which  
5 provides a player access to service features.

72. The gaming device of Claim 69, wherein the system functions interface  
includes a player services interface and an employee systems interface, and wherein insertion  
of an authorized employee identification card, upon which only identification data is  
embedded, into the card reader activates the employee systems interface on the display screen  
5 which provides an employee access to system information.

73. The gaming device of Claim 69, further comprising a converter card connected  
to the additional processor, wherein the converter card enables the systems logic process to  
facilitate communication between the systems interface and a system network which contains  
system information.

74. The gaming device of Claim 69, further comprising a Y adapter that enables  
communication between the display screen and both the at least one processor and the  
additional processor.

75. The gaming device of Claim 69, wherein the additional processor further  
includes calibration software that enables the additional processor to calibrate the display of  
system information on the display screen.

09967221-092801  
108260-124960

76. The gaming device of Claim 69, wherein the systems interface utilizes touchscreen technology for inputting and accessing system information in the systems network.

77. The gaming device of Claim 69, wherein the gaming display screen includes a small region that, when selected, activates the systems interface.

78. The gaming device of Claim 77, wherein the game display process is a master process and the systems logic process is a slave process, and wherein the game display process recognizes when the small region of the display screen is selected, and relinquishes control of the display screen to the systems logic process, allowing communication between the systems interface and a system network.

79. The gaming device of Claim 69, further comprising a message section of the display screen, wherein the section of the display screen is allocated for showing messages to a player of the gaming device.

80. The gaming device of Claim 79, wherein the message section of the display screen is dedicated to control by the systems logic process, and is free from control by the game display process.

81. The gaming device of Claim 69, wherein the systems logic process and the game display process are separate processes, each comprising an independent thread.

09967221.092801

82. The gaming device of Claim 69, wherein the systems logic process is modifiable without impacting the game display process, and wherein the game display process is modifiable without impacting the systems logic process.

83. A gaming system for integrating gaming functions and system functions into a gaming display screen in a gaming device, the gaming system comprising:

a system network containing system information;

a gaming device utilizing a multiple processor platform, wherein a plurality of processors support hard real time processing tasks, and an additional processor supports a graphic user interface, and

wherein the plurality of processors run hard real time tasks related to controlling game peripherals;

wherein the additional processor runs a systems logic process that provides access to system information on a system network via the systems interface; and

wherein the additional processor also runs a game display process and a game logic process that together manage all game control necessary to generate a wagering game, wherein the systems logic process is maintained as a separate process from the game display process;

a network interface for connecting the gaming device to the system network;

a gaming interface produced by the game logic process and the game display process, viewable on the display screen, wherein the gaming interface enables a player to participate in the wagering game; and

00967221.092874  
T09260" T2279650

20 a systems interface produced by the systems logic process that is viewable on the display screen, wherein the systems interface provides access to the system information on the system network via the display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee.

84. A gaming system for integrating gaming functions and system functions into a gaming display screen in a gaming device, the gaming system comprising:

a system network containing system information;

5 a gaming device utilizing a multiple processor platform, wherein at least one processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface;

wherein the at least one processor runs a game logic process that includes the game rules necessary to generate a wagering game;

10 wherein the additional processor runs a systems logic process that provides access to system information on a system network; and

wherein the additional processor also runs game display process that includes a audiovisual functionality necessary to generate the wagering game, wherein the systems logic process is maintained as a separate process from the game display process;

a network interface for connecting the gaming device to the system network;

15 a gaming interface produced by the game logic process and the game display process, viewable on the display screen, wherein the gaming interface enables a player to participate in the wagering game; and

09967221.092801

a systems interface produced by the systems logic process that is viewable on the display screen, wherein the systems interface provides access to the system information on the system network via the display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee.

85. The gaming system of Claim 84, wherein the systems interface utilizes touchscreen technology for inputting and accessing system information in the systems network.

86. The gaming system of Claim 84, further comprising a card reader, wherein the card reader functions to read identification cards, upon which only identification data is embedded.

87. The gaming system of Claim 84, wherein the gaming display screen includes a small region that, when selected, activates the systems interface.

88. The gaming system of Claim 87, wherein the game display process is a master process and the systems logic process is a slave process, and wherein the game display process recognizes when the small region on the display screen is selected, and relinquishes control of the display screen to the systems logic process, allowing communication between the systems interface and the system network.

100260" 122/5660

89. The gaming system of Claim 84, further comprising a message section of the display screen, wherein the section of the display screen is allocated for showing messages to a player of the gaming device.

90. The gaming system of Claim 89, wherein the message section of the display screen is dedicated to control by the systems logic process, and is free from control by the game display process.

91. The gaming system of Claim 84, wherein the systems logic process and the game display process are separate processes, each comprising an independent thread.

92. The gaming system of Claim 84, wherein the systems logic process is modifiable without impacting the game display process, and wherein the game display process is modifiable without impacting the systems logic process.

93. The gaming system of Claim 84, wherein the game display process that runs the gaming interface supports a graphic user interface based wagering game.

94. The gaming system of Claim 84, further comprising a game monitoring unit having a converter card.

95. The gaming system of Claim 94, wherein the game monitoring unit includes a network interface card.

00967221-092801  
108260-12279660



96. The gaming system of Claim 94, wherein the converter card utilizes I<sup>2</sup>C hardware and signaling.

97. The gaming system of Claim 94, wherein the converter card enables the systems logic process to communicate with the systems interface and the system network.

98. The gaming system of Claim 84, further comprising a Y adapter that enables communication between the display screen and both the at least one processor and the additional processor.

99. The gaming system of Claim 84, wherein the additional processor further includes calibration software that enables the additional processor to calibrate the display of system information on the display screen.

100. A gaming device having a display screen and a card reader, the gaming device comprising:

a gaming device utilizing a multiple processor platform, wherein at least one processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface, and

a gaming interface incorporated into the display screen, wherein the gaming interface enables a player to participate in a wagering game;

a systems interface incorporated into the display screen, wherein the systems interface displays system information in the system network to a casino player or employee via the

09967221-092801

10 display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee.

101. A gaming system for integrating gaming functions and system functions into a gaming display screen in a gaming device, the gaming system comprising:

a system network containing system information;

5 a gaming device utilizing a multiple processor platform, wherein at least one processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface;

a network interface for connecting the gaming device to the system network;

a gaming interface incorporated into the display screen, wherein the gaming interface enables a player to participate in a wagering game;

10 a systems interface incorporated into the display screen, wherein the systems interface displays system information in the system network to a casino player or employee via the display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee.

102. A gaming device having a display screen and a card reader, the gaming device comprising:

a gaming device utilizing a multiple processor platform, wherein at least one processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface,

a gaming interface incorporated into the display screen, wherein the gaming interface enables a player to participate in a wagering game;

00967221 092801  
108260 1222960

a systems interface incorporated into the display screen, wherein the systems interface displays system information in the system network to a casino player or employee via the display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee;

a game monitoring unit having a converter card that utilizes I<sup>2</sup>C hardware and signaling, wherein the converter card enables the additional processor to communicate with the systems interface and the system network;

a Y adapter that enables communication between the display screen and both the at least one processor and the additional processor; and

calibration software that enables the additional processor to calibrate the display of system information on the display screen.

103. The gaming device of Claim 102, wherein the insertion of an identification card, upon which only identification data is embedded, into the card reader activates the systems interface on the display screen.

104. The gaming device of Claim 102, wherein the system functions interface includes a player services interface and an employee systems interface, and wherein insertion of an authorized player identification card, upon which only identification data is embedded, into the card reader activates the player services interface in the display screen which provides a player access to service features.

105. The gaming device of Claim 102, wherein the system functions interface includes a player services interface and an employee systems interface, and wherein insertion

09967221-092801

of an authorized employee identification card, upon which only identification data is embedded, into the card reader activates the employee systems interface in the display screen

5 which provides an employee access to system information.

106. The gaming device of Claim 102, wherein the systems interface utilizes touchscreen technology for inputting and accessing system information in the systems network.

107. The gaming device of Claim 102, wherein the gaming device utilizes a multiple processor platform, wherein the at least one processor comprises a plurality of processors that support hard real time processing for hardware applications, and the additional processor supports a graphic user interface, and

5 wherein the plurality of processors run hard real time tasks related to controlling game peripherals;

wherein the additional processor runs a systems logic process that provides access to system information on a system network via the systems interface; and

10 wherein the additional processor also runs a game display process and a game logic process that together manage all game control necessary to generate a wagering game, wherein the systems logic process is maintained as a separate process from the game display process.

108. The gaming device of Claim 107, wherein the gaming display screen includes a small region that, when selected, activates the systems interface.

09967221-092801

109. The gaming device of Claim 108, wherein the game display process is a master process and the systems logic process is a slave process, and wherein the game display process recognizes when the small region of the display screen is selected, and relinquishes control of the display screen to the systems logic process, allowing communication between the systems interface and a system network.

110. The gaming device of Claim 107, further comprising a message section of the display screen, wherein the section of the display screen is allocated for showing messages to a player of the gaming device.

111. The gaming device of Claim 110, wherein the message section of the display screen is dedicated to control by the systems logic process, and is free from control by the game display process.

112. The gaming device of Claim 107, wherein the systems logic process and the game display process are separate processes, each comprising an independent thread.

113. The gaming device of Claim 107, wherein the systems logic process is modifiable without impacting the game display process, and wherein the game display process is modifiable without impacting the systems logic process.

114. A gaming system for integrating gaming functions and system functions into a gaming display screen in a gaming device, the gaming system comprising:

09567221-092801  
109260-12229660

a system network containing system information;

a gaming device utilizing a multiple processor platform, wherein at least one

5 processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface,

a network interface for connecting the gaming device to the system network;

a gaming interface incorporated into the display screen, wherein the gaming interface enables a player to participate in a wagering game;

10 a systems interface incorporated into the display screen, wherein the systems interface displays system information in the system network to a casino player or employee via the display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee;

15 a game monitoring unit having a converter card that utilizes I<sup>2</sup>C hardware and signaling, wherein the converter card enables the additional processor to communicate with the systems interface and the system network;

a Y adapter that enables communication between the display screen and both the at least one processor and the additional processor; and

20 calibration software that enables the additional processor to calibrate the display of system information on the display screen.

115. The gaming system of Claim 114, wherein the systems interface includes system information input and display capabilities.

09567221 092801

116. The gaming system of Claim 114, wherein the systems interface utilizes touchscreen technology for inputting and accessing system information in the systems network.

117. The gaming system of Claim 114, further comprising a card reader, wherein the card reader functions to read identification cards, upon which only identification data is embedded.

118. The gaming system of Claim 114, wherein the systems interface includes a player services interface and an employee systems interface.

119. The gaming system of Claim 118, wherein the player services interface provides a player access to service features selected from a group including beverages, change, and transactions.

120. The gaming system of Claim 118, wherein the employee systems interface provides an employee access to system information selected from a group including game information, game monitoring unit address, test mode, machine reservation, hopper status, account meters, program state, and a meter zeroing function.

121. The gaming system of Claim 118, further comprising a card reader, and wherein insertion of an authorized player identification card into the card reader activates the player services interface in the gaming display screen.

00967221-092801  
T08260 T2279660

122. The gaming system of Claim 118, further comprising a card reader, and wherein insertion of an authorized employee identification card into the card reader activates the employee systems interface in the gaming display screen.

123. The gaming system of Claim 114, wherein the gaming system includes a game logic process and a game display process that generate the wagering game via the gaming interface, and a systems logic process that generates communication between the system network and the systems interface.

124. The gaming system of Claim 114, wherein the gaming device utilizes a multiple processor platform, wherein the at least one processor comprises a plurality of processors that support hard real time processing for hardware applications, and the additional processor supports a graphic user interface, and

wherein the plurality of processors run hard real time tasks related to controlling game peripherals;

wherein the additional processor runs a systems logic process that provides access to system information on a system network via the systems interface; and

wherein the additional processor also runs a game display process and a game logic process that together manage all game control necessary to generate a wagering game, wherein the systems logic process is maintained as a separate process from the game display process.

09067221 092801  
T08260" T2249660



125. The gaming system of Claim 124, wherein the gaming display screen includes a small region that, when selected, activates the systems interface.

126. The gaming system of Claim 125, wherein the game display process is a master process and the systems logic process is a slave process, and wherein the game display process recognizes when the small region of the display screen is selected, and relinquishes control of the display screen to the systems logic process, allowing communication between the systems interface and the system network.

127. The gaming system of Claim 124, further comprising a message section of the display screen, wherein the section of the display screen is allocated for showing messages to a player of the gaming device.

128. The gaming system of Claim 127, wherein the message section of the display screen is dedicated to control by the systems logic process, and is free from control by the game display process.

129. The gaming system of Claim 124, wherein the systems logic process and the game display process are separate processes, each comprising an independent thread.

130. The gaming system of Claim 124, wherein the systems logic process is modifiable without impacting the game display process, and wherein the game display process is modifiable without impacting the systems logic process.

09067221 092801  
103260" T2229660

131. The gaming system of Claim 124, wherein the game display process that runs the gaming interface supports a graphic user interface based wagering game.

132. The gaming system of Claim 114, further comprising a game monitoring unit.

133. The gaming system of Claim 132, wherein the game monitoring unit includes a network interface card.

134. The gaming system of Claim 132, wherein integrating the systems interface into the display screen lowers overall system costs due to hardware elimination and reduced maintenance costs.

135. A gaming system for integrating gaming functions and system functions into a gaming display screen in a gaming device, the gaming system comprising:

a system network containing system information;

a gaming device utilizing a multiple processor platform, wherein at least one

processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface, and wherein the gaming device connects directly to the system network;

a gaming interface incorporated into the display screen, wherein the gaming interface enables a player to participate in a wagering game;

a systems interface incorporated into the display screen, wherein the systems interface displays system information in the system network to a casino player or employee via the

09967221-092801

display screen; and wherein the systems interface allows requests to be input into the system network from the systems interface by a casino player or employee;

15 a game monitoring unit having a converter card that utilizes I<sup>2</sup>C hardware and signaling, wherein the converter card enables the additional processor to communicate with the systems interface and the system network.

136. A gaming device having a display screen and a card reader, the gaming device comprising:

5 a gaming device utilizing a multiple processor platform, wherein at least one processor is capable of hard real time processing, and an additional processor is capable of supporting a graphic user interface, and

a gaming interface that is viewable on the display screen, wherein the gaming interface enables a player to participate in a wagering game;

10 a player services interface, wherein insertion of an authorized player identification card, upon which only identification data is embedded, into the card reader activates the player services interface on the display screen which provides a player access to service features; and

15 an employee systems interface, wherein insertion of an authorized employee identification card, on which only identification data is embedded, into the card reader activates the employee systems interface on the display screen which provides an employee access to system information.

09967221-092801

generating a wagering game via a gaming interface by running a game logic process that includes the game rules necessary to generate the wagering game, and by running a game display process that includes audiovisual functionality necessary to generate a wagering game and that writes to the display screen of the gaming device;

generating a systems interface by running a systems logic process that provides access to system information on a system network and that writes to the display screen, wherein the systems logic process is maintained as a separate process from the game display process; and

138. A method of integrating gaming functions and system functions into a gaming display screen of a gaming device, wherein the gaming device includes a display screen and a card reader, the method comprising:

generating a wagering game via a gaming interface by running a game logic process that includes the game rules necessary to generate a wagering game, and by running a game

enabling a player to interact with the wagering game through the gaming interface that is incorporated into the display screen;

enabling activation of a player services interface, wherein insertion of an authorized player identification card, upon which only identification data is embedded, into the card reader activates the player services interface in the display screen which provides a player access to service features by accessing system information in a system network; and

enabling activation of an employee systems interface, wherein insertion of an authorized employee identification card, upon which only identification data is embedded, into the card reader activates the employee systems interface in the display screen which provides an employee access to system information in a system network.